

Reptiles of the Macquarie Harbour region

Reptiles are essentially inhabitants of warm climates. It is not surprising, therefore, to find a relatively modest reptile fauna in the State, particularly compared to the remarkable diversity to be found in central Australia.

Twenty-one land-dwelling species of reptile occur in Tasmania. Of these, seven are endemic — that is, they are found nowhere else in the world. Most are lizards, with all except one in the skink family. In alpine areas, the small skinks that are seen basking on rocks are the main component of the vertebrate fauna. One species of the dragon family (which includes the frillneck lizard and thorny devil) occurs in the state. This is the egg-laying mountain dragon, *Tympanocryptis diemensis*, which occurs in the north and east of the State.

Only three species of snake occur in Tasmania, although a further three species of sea snake have been recorded as vagrants from our coastal waters.

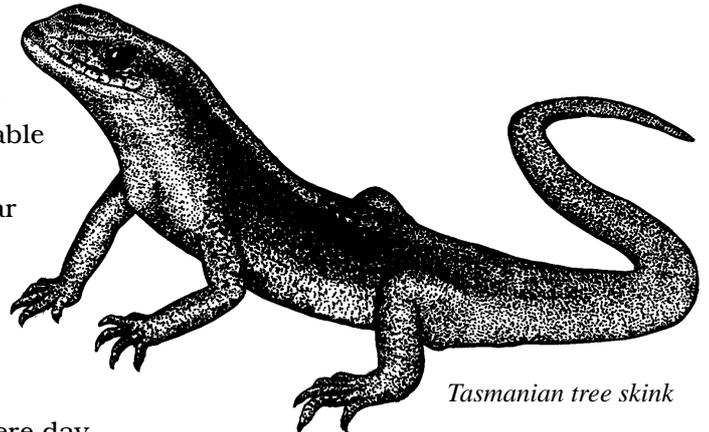
Biology of reptiles

Reptiles rely on external sources of heat to bring their

body temperature up to that suitable for activity. There is a far greater diversity of species in the tropics and deserts, where day time temperatures are generally warmer than those in Tasmania.

Those species which do occur in Tasmania are of great interest because of the adaptations they have to the cooler Tasmanian climate. While most reptiles lay eggs, in Tasmania all except four species give birth to live young. Embryos develop much more rapidly if they can be warmed in the body of a basking female than if left buried in the cold ground. In some species, females are able to store sperm within their oviducts over winter so that fertilisation occurs at the onset of milder conditions, even in the absence of a male.

The ability of skinks to shed their tails to escape predators is well known. What is less well known is that the break



Tasmanian tree skink

does not occur between tail vertebrae as might be expected but actually occurs between fracture planes within the individual vertebrae. Blood loss is prevented by muscles which seal the major vein and artery. The new tail does not contain vertebrae, but rather is composed of a cartilaginous rod.

The ability of snakes to swallow prey larger than their own heads is the result of some remarkable adaptations of the jaw. The two halves that make up the lower jaw are not fused as in most vertebrates but are able to separate due to the elastic nature of the ligaments that hold them together. The lower jaw bones are attached to the upper half of the skull by elastic ligaments. Snakes have four rows of teeth in the

upper half of the skull. The innermost rows (palatal teeth) are fixed to the skull and act as a ratchet whilst the outermost rows of teeth (including the fangs of venomous species), which are attached to the movable maxillary bone, "walk" the prey into the mouth. The windpipe is protruded like a snorkel to allow the snake to breathe while swallowing.

The use of venom by snakes is primarily to catch prey, not as a means of defence. A snake which bites a person is putting itself at great risk getting so close to a large animal capable of inflicting serious injury simply by stepping on it. The risk of damage to the delicate fangs is also very high. Although the venom of the three Tasmanian species is toxic, death from snake bite is very rare. In fact, more people have died in Australia from being kicked by mules than through snake bite. Notwithstanding, it is worth bearing in mind that the recommended procedure for snake bite is a pressure bandage — not a tourniquet.

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Our knowledge of the distribution of Tasmanian reptiles, and indeed many aspects of reptile ecology, is still poor. Species other than those listed below may be found in the Macquarie Harbour region.

Metallic skink

Niveoscincus metallicus

The most widespread reptile in Tasmania, the metallic skink can be found from sea level to the tops of mountains. It reaches 55 mm from its snout to its vent and is variable in colour, ranging from light to very dark metallic brown. Their scales have ridges or 'keels' on them. Specimens from the Macquarie Harbour area usually have fine striping along the body, with a dark stripe down the centre of the back. The lizards often have a pink or orange belly. The metallic skink gives birth to up to seven live young at a time.

Tasmanian tree skink

Niveoscincus pretiosus

This lizard is slightly flattened in appearance, with a ragged-edged dark stripe running down the centre of its black-speckled back and a strong white stripe running from its top lip to its back leg. The species has longer legs and smaller scales on its back than its close relative the metallic skink. Despite its name, the Tasmanian tree skink is just as much at home on the rocky shores of the west coast as it is 15 metres up a tree. Tree skinks forage widely for invertebrates on tree trunks, beneath bark and even between the high and low tide marks.

Tiger Snake *Notechis ater*

The tiger snake is highly variable in colour, ranging from yellow-orange with grey

bands to sandy-grey with no bands. In the Macquarie Harbour area, most tiger snakes are black with no banding or faint yellow to cream bands. It is unlikely to be mistaken for the white-lipped whipsnake, which is a small, slender snake with a distinctive white stripe on the upper lip.

The tiger snake can reach a length of 1.8 m, while the Chappell Island subspecies reaches nearly 2.5 m. Tiger snakes occupy a wide variety of habitats, from dry rocky areas, wet marshes and moorlands through to wet and dry forests. It preys on small mammals, lizards, smaller snakes and frogs. Tiger snakes are proficient swimmers and are also capable of climbing trees in their search for nesting birds.

White-lipped whip snake

Drysdalia coronoides

This small snake (25-50 cm) is generally an olive green to green-grey on the upper surface and pale grey underneath. They prefer heathland and dry forests and are often active on fine days during the winter, as their small body size allows them to heat up quickly. This species generally feeds on small lizards.

Further reading

Cogger, H. (1983). *Reptiles and Amphibians of Australia*. A.H. and A.W. Reed, Sydney.

Heatwole, H. (1976). *Reptile Ecology*. University of Queensland Press, St. Lucia.

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